

on a scale of 0 to 10. Relevance of pain to the patient experience with psoriasis was assessed using the patients' descriptive language to identify related themes and assign codes to similar content. Resulting concept codes were evaluated for predominance (how much patients talked about each concept), severity, and being offered spontaneously. **RESULTS:** The 30 subjects interviewed (CE, N=20; CI, N=10) were between 27 and 75 years of age (mean of 52), and were 30% female and 60% white. Concept codes for pain comprised 11% of all the expressions patients offered about their symptoms. Pain was the fourth most predominantly discussed symptom in the interview transcripts. In 11 of the 20 CE interviews subjects spontaneously offered pain as a symptom and rated its severity as 6.2 out of 10. **CONCLUSIONS:** These qualitative findings regarding the presence and severity of pain provide evidence for the inclusion of pain as a key symptom concept of relevance to patients with moderate to severe psoriasis.

#### PSS33

##### DEVELOPMENT OF A PATIENT-REPORTED OUTCOMES MEASURE FOR PSORIASIS: THE PSORIASIS SYMPTOMS, SIGNS, AND IMPACT QUESTIONNAIRE

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**OBJECTIVES:** To develop a patient-reported outcome (PRO) questionnaire measuring symptoms, signs, and impact to assess treatment benefit in patients with moderate-severe plaque psoriasis (PsO). **METHODS:** In-person 1:1 concept elicitation interviews were conducted to identify concepts relevant and important to moderate-severe PsO patients (n = 20). An interview guide was designed to obtain input regarding symptoms, signs, impact on work, family and general well-being, and specific language to express issues related to having plaque PsO. Evidence of saturation was determined when no new concepts were mentioned. From these results, input from dermatologists, PRO experts, and published literature, a Psoriasis Symptoms, Signs and Impact Questionnaire (PSSIQ) was drafted. The PSSIQ was revised based on three waves of in-person cognitive debriefing interviews with moderate-severe plaque PsO patients (n = 19), and consideration of translatability into non-English languages. **RESULTS:** The PSSIQ contains two sections. A Psoriasis Symptoms and Signs Diary (PSSD) includes 5 symptoms (itch, pain, stinging, burning, and skin tightness) and 6 patient observable signs (skin dryness, cracking, scaling, shedding or flaking, redness, and bleeding) using 0-10 numerical rating scales for severity. The second section, the Psoriasis Impact Questionnaire, includes items on impact of psoriasis on daily activities and emotional impact during the past 7 days. Two versions are available using a recall period of either the past 24 hours or past 7 days. Days with symptoms and signs experienced are collected in the 7-day version. During cognitive interviews, PsO patients found each item and the instructions in the questionnaire clear and relevant, and were able to provide a response with relative ease. **CONCLUSIONS:** The PSSIQ will be a valuable tool to evaluate treatment benefits of new therapeutic agents for patients with moderate-severe plaque PsO in clinical trials. Research examining its measurement properties, including reliability, validity, and ability to detect change, is underway.

#### PSS34

##### VISUAL FUNCTION RESPONSE TO OCRIPLASMIN FOR THE TREATMENT OF VITREOMACULAR TRACTION AND MACULAR HOLE

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**OBJECTIVES:** Vitreomacular adhesion (VMA) can lead to pathologic traction and macular hole formation. The effect of an intravitreal ocriplasmin-injection on VMA resolution was demonstrated in two multicentre, randomized, double-masked, phase 3 clinical trials (MIVI-TRUST). The objective of our analysis was to assess the effect of ocriplasmin on patient relevant visual function outcomes, measured using visual acuity (VA) and vision-related quality of life. **METHODS:** Post-hoc analysis of prespecified secondary endpoints in MIVI-TRUST. A total of 652 participants with symptomatic VMA were enrolled, of whom 464 received a single intravitreal injection of 125µg ocriplasmin and 188 received a single intravitreal placebo-injection. Visual function response (VFR) was defined as either: a VA improvement of ≥ 2 lines; or an improvement exceeding the minimal clinically important difference (MCID) in the composite score of the National Eye Institute Visual Function Questionnaire (VFQ-25) or in the VFQ-25 driving subscale score. The MCID was estimated using the standard error of measurement approach. The main outcome measure was the VFR at 6 months. **RESULTS:** The MCID was estimated at 3.6 points for the VFQ-25 composite score and 19.1 for the VFQ-25 driving subscale score. A VFR occurred in 55.1 % of the ocriplasmin-injection group versus 34.2% of the placebo-injection group (P<0.0001). This comprised 23.7% versus 11.2% (P=0.0003) with a ≥ 2 line VA improvement, 35.9% versus 22.7% (P=0.0016) for the VFQ-25 composite score increase > MCID, and 10.2 % versus 6.2% (P=0.1697) for the driving subscale score increase > MCID. **CONCLUSIONS:** Ocriplasmin produces significant and clinically meaningful visual function benefit to the patient in addition to higher VMA resolution rates. This analysis redefines visual function response and allows patient and physician to consider both anatomical and functional benefits when discussing treatment options.

#### PSS35

##### BURDEN OF PSORIASIS IN DEVELOPING AND DEVELOPED COUNTRIES

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**OBJECTIVES:** To evaluate the burden of psoriasis (PsO) in developed (Europe, US, and Japan) and developing countries (Brazil, China, and Russia). **METHODS:** The analysis utilized data from the 2011 and 2012 National Health and Wellness Survey (NHWS, validated/stored by Kantar Health, USA) an annual cross-sectional survey

conducted in Europe (SEU: France, Germany, Italy, Spain, and UK), Japan, US, Brazil, urban China, and Russia. Stratified random sampling based on sex and age (and ethnicity in the US) was used to ensure representativeness of the total regional adult populations. Quality of life (QOL) was assessed using the mental (MCS) and physical component summary (PCS) scores from the Short Form-12/36 (SF-12v2/SF-36v2); work productivity loss was assessed using the Work Productivity And Impairment (WPAI) and health care resource use was self-reported. Descriptive analyses were conducted within each country; comparisons between developed and developing countries were made with respect to demographics, health history, and health outcomes. **RESULTS:** The prevalence of PsO was 4.4% in SEU, 1.0% in Japan and 2.4% in the US. The prevalence in developing countries was similar (Brazil 1.3%, Russia 2.1%, China 3.3%). Compared to those in developed countries, PsO patients in developing countries were more likely to be male, younger, married, employed, educated and have more comorbidities. Across both regions, PsO patients had lower scores in PCS & MCS, and higher activity impairment, work productivity loss, and health care resource use. The burden of PsO is associated with disease severity and BMI. All decrements exceeded cutoffs for clinical significance. **CONCLUSIONS:** Despite differences in patient demographics characteristics between developed and developing countries, significant burdens of PsO were observed across all countries with respect to worse QOL, higher health care resource use, and more work productivity loss than patients without PsO.

#### PSS36

##### BURDEN OF DISEASE ESTIMATION FOR HEALTHY AGING IN OLDER ADULTS: THE CASE OF THE RANKING OF HEARING LOSS

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**OBJECTIVES:** The recent Institute of Medicine (IOM) workshop on "Hearing Loss and Healthy Aging" brought national attention to the broad health implications of untreated HL in older adults. The objective of this study is to explore the impact of HL on quality of life (QoL) on the US population, separate from the length of survival, using the 2000 Medical Expenditure Panel Survey (MEPS) and 2010 US Census data. **METHODS:** Utility weights and population modeling using data from subjects age 60-90 from the MEPS 2000 sample were used to estimate utility decrements (UD), which were then applied to the 2010 US census population to estimate annual QALYs lost from chronic conditions for the US population. **RESULTS:** Of the sample respondents 15.4% had mild (UD.034) and 1.1% had Moderate/Severe (UD.18) HL. Decrements due to joint pain 53% (UD.0643), hypertension 47.2% (UD.0292), diabetes 15.6% (UD.0577), angina 9.8% (UD.0352), asthma 7.9% (UD.0288), emphysema 4.5% (UD.1186), and age (UD.0033) were calculated. When decrements were applied to the population the QALY loss ranged from 821,918 for joint pain 16,614 for blindness. Contrary to HL's low ranking in the Global Burden of Disease study, HL ranked 4th at 174,689 when survival is excluded and only older US patients are considered. **CONCLUSIONS:** HL has a substantial impact on healthy aging which is not obvious when QoL decrements include the effects on survival, or when younger people are included in the estimates. It is important to disassociate the effects of survival and the effects of a utility decrement when discussing the burden of illness for populations for whom QoL may be more important than length of survival. The results raises important issues for health policy formation for the aging "Baby Boomer" generation, indicating that the current lack of Medicare coverage for hearing aids and related services should be reassessed.

#### SENSORY SYSTEMS DISORDERS – Health Care Use & Policy Studies

#### PSS37

##### MEDICATION USE AND ASSOCIATED HEALTH CARE COSTS FOR FOUR COMMON SKIN CONDITIONS IN THE UNITED STATES

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**BACKGROUND:** While skin disease is one of the most common health problems in the United States, few studies have examined the impacts of medication use for common skin conditions on medication cost using national representative data, and much of these studies are out of date. **OBJECTIVES:** To examine the impact of patient demographics and medication use on patient' skin conditions specific medication cost, including acne, psoriasis, contact dermatitis, and rosacea. **METHODS:** This retrospective cross-sectional study was conducted using data from the 2007 Medical Expenditure Panel Survey (MEPS) database. Information on patient demographics, health status and medication use and cost were obtained representing a total of 4,429,674 patients with acne; 1,489,744 patients with psoriasis; 2,621,470 patients with contact dermatitis and 1,214,775 patients with rosacea. **RESULTS:** The weighted average annual total medication payments associated with specific conditions was about \$183 for patients with acne; \$3036 for patients with psoriasis; \$62 for patients with contact dermatitis and \$307 for patients with rosacea. Results of weighted multiple linear regression indicated that refill times of prescribed medications were significantly related with higher medication expenditure for all of four skin conditions (p<sub>refill</sub><0.001). Being covered by private or public insurance yielded an increase in medication expenditure except for psoriasis patients (acne: p<sub>private</sub><0.05, contact dermatitis: p<sub>private</sub><0.01, rosacea: p<sub>private</sub><0.01). Older adults with acne or contact dermatitis expended less on medication compared with younger adults (acne: p<sub>age</sub><0.01, contact dermatitis: p<sub>age</sub><0.05). **CONCLUSIONS:** By calculating the annual total medication expenditures, this study provides important up-to-date information on the economic burden of these four common skin conditions. Results of this study indicated medication use and being covered by insurance were associated with medication expenditure. Expanding the coverage of insurance may increase medication spending for patients with skin conditions, thus impact of insurance coverage and medication use on patient health status needs further studies.